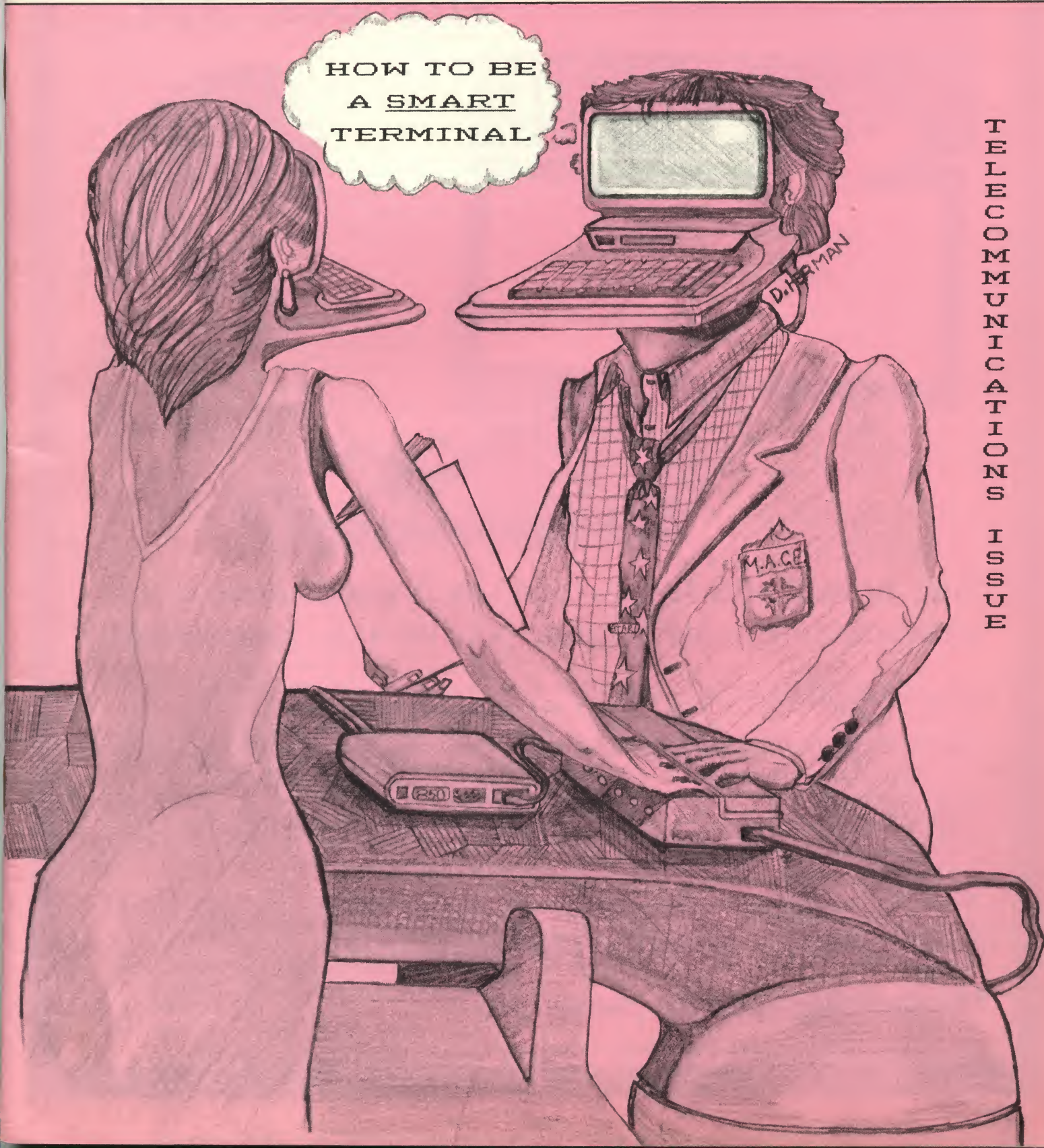


December, 1982
NEWSLETTER

\$2⁰⁰
Vol. 2, No. 12

MICHIGAN ATARI COMPUTER ENTHUSIASTS



TELECOMMUNICATIONS
ISSUE

The imagination of a child
can see further than the
sharpest eye



But to see into the future she'll need more than
imagination; she'll need skills and knowledge

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POKES FROM THE PREZ

Marshall Dubin

PRE-SCHOOL INTEREST GROUP - At the last general meeting, there were several people interested in sharing information about using computers with young children. Before I get into any logistical details, let me just mention a few things.

Exposure to computers is beneficial to young children. In the first place, it gets them used to a technology that will be ever present throughout their lives. Secondly, it enhances their ability to learn. Since this is not an educational lecture, I will depart from this line of thinking, and recommend that if you are interested, pick up a copy of 'MINDSTORMS' by Seymour Papert, or some other foundation book on computers and kids.

OK, now for my point. Many MACE members have expressed an interest in developing a forum of early educational and pre-school software. Since we have many members out of town, I would like to open this up to everyone. My initial proposal follows:

- * Let's begin by starting a collection of user donated, public domain software.

- * MACE will catalog this as it is received, and arrange to have the documentation duplicated.

- * This software and documentation will be made available at cost (of media, mailing, etc.) to members.

- * We will also collect and archive, reprints, references, and other documents useful to parents and teachers.

- * Space in the newsletter will be provided for the exchange of ideas and opinions on early and pre-school learning with computers.

To get the ball rolling, send any submissions or direct any questions to me, care of: MACE KIDS, PO BOX 2785, SOUTHFIELD, MICHIGAN 48037.

MICRO WARS REVISITED (YAWN).

Chicago! Riots broke out in a quiet suburb of Chicago yesterday when members of an Apple user group allegedly attacked an Atari meeting armed with deadly disks of Integer Basic, which were tossed at the suprised Atari victims. Fortunately there were no injuries. A police

spokesman said that this may have been in reprisal for the infamous Applefest Raid last October, when roving bands of Atarians kidnapped a bunch of Apples and injected them with deadly ATASCII, rendering them as ineffective as VIC-20's. Thats scary folks!

Seriously though, there's been a lot of brou-ha-ha lately on the BBS between a few individuals who insist on playing the 'mine is bigger than yours' game, well into adolescence and beyond! So your Apple is better than an Atari? Fine...that's your opinion. I don't think so. As president of the largest Atari user group in the galaxy, I'll be the first to say that how 'good' your computer is depends strictly on what you do with it, and how it can fit your needs.

I wouldn't recommend an Atari to someone, whose needs called for an Apple. Likewise the other way around. You are going to buy the unit that can serve you best. I own an Atari. That was my choice. I liked it and I bought it. You may own an Apple or TRS-80. Big deal. I have a brown suit. You may have a blue suit. Who cares what it is as long as you can wear it. I don't personally give a hoot one way or the other if you think your computer is better than mine or not. It's what you do WITH the computer that's important. Not whose logo is on the front panel.

Now we went through all this last year. Why don't we drop this unimportant issue and concentrate on things that make a difference.

TELECOMMUNICATIONS SIG FORMING

Want to learn more about using your Atari with a modem to expand your information horizons? Sign up for the MACE Telecommunications Special Interest Group. Our first meeting will be held early in January 1983. The adgenda will include election of a chairman, instruction in the use of the MACE Terminal program, and short demos of logging into an AMIS BBS and the Compuserve ATARI SIG. To join, call 399-6964 during human hours and ask for Arlan or leave a message. Hope to see you there!

TidBITS
Peeked from Memory
by
F.PARR,JR.

THIS MONTH:

Glitches, Zaps and Things that Go Blank in the Night

OR,
The RAMifications of overlooking the obvious

Gather 'round fellow enthusiasts and let me tell you a story of how I almost lost a lot of time and money just because I didn't think a simple problem all the way through.

It all started one warm summer evening. After cranking up my trusty old 810 I flipped the switch on my 800 and was greeted by a screen full of characters - not the Menu Display I expected but a bunch of GOBBLEY GOOP!

"HOLY SUNNYVALE!" I said to myself, "what now?". Popping the top off my unit I gingerly tugged the O.S. ROM board from its socket and checked the silver contacts (yes, it's an oldie) for oxidation. Hmmm... Couldn't hurt to clean it, I thought.

That accomplished, I dutifully coated the connectors with lubriplate grease and nestled the board back into place. Replacing the cover I flicked the power back on and crossed my fingers. Bingo! Back in business !

A couple of days later it happened again. "Great balls of fire - What gives?" I exclaimed. Back to the ROM board for more cleaning and the unit seemed fixed. But the next day it happened again, and then again and again. It didn't take too many more of these occurrences to convince me that I really wasn't fixing the right problem.

"Rats, gotta be a chip gone bad - maybe the CTIA (told ya it was an old machine). Maybe I could fix it myself..."

An hour later and two dozen screws strewn on my desk convinced me I couldn't. So much for that idea. Guess I gotta take it in for service. I'll call my buddy Roger - he'll know the best place to take it.

Now let me tell you about Roger. A normally placid fellow, Roger occasionally confounds me

with fits of wisdom that leave me totally in awe. If anyone knew the best place to get my sweetheart fixed he would.

"Rog...Fred, I need help." "Really? What seems to be the problem?" "Well I'm getting these wierd screen displays and my 800's acting like it's got indigestion. Checked the ROM board - it isn't that - I cleaned it several times." "Did you check the RAM boards?" "Uh, no, but that can't be the problem!" "Look Fred", he confided in his most fatherly tone of voice, "the screen display resides in memory, RAM, ya know? Besides, it couldn't hurt to check it first before you take it in for service."

Then I remembered. One of my three RAM boards inside had silver contacts (Uh huh, the original board). I yanked it, cleaned it, and yoila! I was back in business. And this time for good. I haven't had any problems (cross my fingers) since.

I was lucky. Roger had coaxed me to check something I normally would have overlooked. Sure it was a small thing but it saved me from computer withdrawl which could have lasted weeks and who knows how much in service charges just to tell me my board wasn't making good contact.!

MY POINT IS THIS: Before taking your unit in for service be sure to check EVERYTHING from the power plugs to your peripheral connectors and, yes, even your RAM boards - it could save you a lot of grief (and money).

By the way, in case you're wondering why cleaning the ROM board seemed to fix the problem temporarily, here's the answer. Each time I re-inserted the board after cleaning I rocked it vigorously to assure good contact. In doing so I rocked the whole card cage which in turn rubbed the contacts on all the other boards just enough to temporarily re-establish good contact.

So there it is. I hope my experience might save you some trouble in the future. And by the way, even if all your boards are gold plated don't think you're immune from problems. Just remember - all that glitters...

FP/JR

A LAYPERSON'S INTRODUCTION TO TELECOMMUNICATIONS

by Arlan R. Levitan

I see that this issue of MACE is devoted to Telecommunications. That's an awfully big word. What does it mean?

Telecommunications is a field that covers a lot of ground (no pun intended), but for our purposes we can consider it to be the act of sending information back and forth between computers over regular telephone lines.

Well I don't see any real use for that...

Telecommunicating means being able to access a whole new world of information. First of all, there are free computer bulletin board systems (often called CBBS's or BBs's) throughout the country.

What is a BBS and what good can it do me?

A BBS is an electronic bulletin board. Other people with computers can call in and leave and read messages. Many BBS's are devoted to specific areas of interest. For example, the MACE bulletin board and others like it tend to be devoted to discussion about Atari's although the discussions can be wide ranging at times. Many of these systems also have programs available on them for downloading and facilities for uploading.

Wait a minute! You're starting to lose me with those last two terms.

Sorry...it's all part of the jargon that people who access bulletin boards tend to use. It's really pretty simple. The term DOWNLOAD refers to capturing a program or information that is being sent to your computer by the BBS in the Atari's memory and then usually saving the information on disk, cassette, or simply printing it after you've logged off the system. On the other hand, if you were to send a program from your computer to the bulletin board, we call the process UPLOADING. You can take those downloaded programs and then run them on your computer. It's a lot easier than spending hours on end typing stuff out of computer magazines. The free bulletin boards can give you a constant

supply of new programs for your 400 or 800 for the cost of a phone call, and keep you in touch with what's new in the world of Atari.

So are all the bulletin boards around devoted to Atari?

No, not at all. Although the number of Atari boards is growing every day, there are thousands of other BBS's in the country dedicated to topics ranging from religion to the space program. There's a list in this issue of over five hundred boards.

I've seen ads from CompuServe, the Source, and Dow Jones Information Services in the computer magazines. What are these services all about?

One of the disadvantages of the bulletin boards is that most systems will only handle one caller at a time. They are also usually limited as to the amount of disk storage available on them. The big information services run fairly large computer systems that can handle hundreds of users at one time. This makes it feasible for them to offer such services as on-line encyclopedias, banking by computer, shop at home,...the amount of data they have is truly staggering. One of my favorites is the new Atari Special Interest Group on CompuServe. It has a very comprehensive message system, a conference area where you can converse with other Atari users from all over the country and an extensive ACCESS area where you can download hundreds of Atari programs.

That sounds great! Are those services free?

No, the information services charge an hourly rate to be hooked up to them. Some even charge a membership fee to get a what we call an identifying code that will let you access their system. That isn't as bad as it might seem. If you compare their evening hourly charges to the cost of calling a board that is off in another state, the information services can actually provide a good value for the money, especially in view of all the different services they offer.

I assume that I need an Atari TELELINK I cartridge to do all this...

You don't really need a TELELINK I cartridge at all. In fact, the best use for the cartridge itself is to leave it laying around with the cover

unscrewed so you can show your friends what the inside of a cartridge looks like. The only good things about TELELINK are that it is very easy to use for no-fancy-stuff telecommunications and comes with an hour of free time on CompuServe, The Source, and Dow Jones Information Services. There is a BASIC program in this issue of MACE called AMODEM 4.2 which is vastly superior to TELELINK - it will let you download and upload data from disk or cassette. The only thing that's kind of tricky is making sure you boot up your disk, if you have one, with a diskette with the regular DOS files and a file called AUTORUN.SYS which came on your original DOS II Master Diskette.

Assume I want to get into Telecommunicating. What do I need in the way of equipment?

Assuming you already have an Atari computer, you'll usually need two other pieces of equipment. One is a modem ... (pronounced MOE-DEM), the other is an Atari 850 Interface Module. Whether you need the 850 is determined by the type of modem you buy. A couple of modems on the market don't require the 850 to hook up to your computer.

Just what is a modem? And why would anybody want to buy the ones that have to use the 850 interface? Isn't it a lot more expensive that way?

Hold on...one question at a time please! To answer your first one, a modem is a piece of equipment that converts digital data into an analog signal and vice versa. Don't look so puzzled...information in your computer is stored there in a numerical format. When you're telecommunicating, the computers on both ends of the phone connection have a modem attached to them. The modems can take that numerical information inside the computers and MODulate the numbers into an audio signal (if you listened in on the phone line you'd hear a high pitched whistle). That's how they send information. The modem on the other end listens to that signal and DEModulates it back into a numerical form again that the computer can understand. That's where the name comes from...the translating device MODulates and DEModulates...hence, MODEM.

I think I'm beginning to catch on...but what's the 850 for?

The Atari 850 interface actually contains a little program that helps the Atari computer talk to the modem. The AUTORUN.SYS file that comes with the DOS II master diskette loads it into the computer's memory. If you're just using a cassette it will load in as long as you turn the 850 on first. As I mentioned before, some modems don't require the 850 interface. These modems are made exclusively for the Atari computer. They usually require special programs to use them. And although these programs are usually pretty good, there are a lot more programs written for modems that connect to the 850. Modems that connect to the interface module can actually be used on almost any other kind of computer as well. Besides, if you ever get a printer, you'll be able to hook it up to your computer using the 850.

OK maybe it's not as bad as I thought. I'm a little confused about some of the terms I've seen in ads for modems...stuff like RS232, Baud, Originate, Answer, and then there's even something called Auto-Answer. What's going on here.

It's not as complicated as you might think...RS232 was actually the name of a technical paper presented at an electronics seminar some time ago. The paper talked about establishing standards for equipment like modems. It even defined a type of plug with 25 separate connections on it. The plug itself came to be called an RS232 connector.

But I looked at an 850 interface module manual once and it referred to the connections on the interface as being RS232-C. What's the difference?

The "C" just stands for "Compatible". Out of the 25 connections on a full RS232 plug it turns out that only about three to eight of the connections are ever really needed for our purposes. That's why the plugs on the interface module are not true RS232 plugs. Most modem cables for the Atari are RS232 on the modem end and RS232-C on the 850 end, but some modems even have the cable built in. By the way, the Atari 850 manual is not a very good one for beginners. You'd be better off getting a friend to help you set up your modem and interface than trying to wade through the gobbledygook in that book.

Maybe a better one will come out..A sheet of paper stapled on the front of it said that it's

YOUR CHOICE \$19.99 each LIST \$29.95

APPLE MECHANIC	1	LOST COLONY	3
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CALL TO ARMS	3	PREPPIE	2
CANYON CLIMBER	2	RASTER BLASTER	1,2
CLOWNS & BALLOONS	2	SHOOTING ARCADE	2
CROSSFIRE	1,2	SNAKE BYTE	1,2
CRUSH CRUMBLE CHOMP	1,2	SNEAKERS	1,2
CRYPT OF THE UNDEAD	2	SPACE EGGS	1,2
CYCLOD	1,2	TRACK ATTACK	1,2
DISKMANAGER	2	TUMBLE BUGS	2
Dr. GOODCODES CAVRN	2	TWERPS	1
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STAR RAIDERS	2
PACMAN	2

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SUN 12-5 PM



only a preliminary copy.

I've got news for you...that sheet of paper has been on the front of every 850 manual for the last three years. The preliminary manual is probably the only one you'll ever see from Atari. It would be more appropriate if it said "Abandon Hope All Ye Who Enter Here..." Honestly, the manual is only a help for moderately experienced programmers and technically oriented people. Don't let the manual scare you. Joining the MACE Telecommunications Special Interest Group is a good way to avoid confusion and make friends with people who already have the hang of things.

Hey! Let' get back to stuff like Baud and those other terms.

Sure. Baud is a measurement of the transmission speed of a modem. Most commonly available modems are 300 baud. This means they send 300 bits of information per second. Due to the way data is transmitted it takes 10 bits to send each character of information. Hence, a 300 baud modem will receive and transmit data at 300/10 bits or 30 characters per second. Although the price of 1200 baud modems has come down quite a bit in the last few years, the average price of 300 versus 1200 baud units is about \$150 versus \$500. As you might guess, 300 baud is a lot more popular for that very reason.

What about this Answer and originate stuff?

Its like this...when two computers are talking to each other using modems it's kind of like two people talking over the same telephone line. If both people had voices that sounded EXACTLY the same, it would almost be impossible to tell what was being said while both were talking at once. Fortunately, our voices are different. The modems have to talk to each other using different voices also to make sense of what's going on. So one modem uses a higher pitched voice than the other. The modem using the higher pitched tone is said to be in ANSWER mode. The lower pitched voice used by the other modem is ORIGINATE mode. Some time ago, everybody who made modems actually agreed on the exact frequencies of both answer and originate voices so different brand modems would know exactly what to listen for.

What about the terms HALF and FULL DUPLEX?

Duplex describes the type of conversation going on between the modems on a line. Let's imagine two real people talking on the phone again. Both persons can talk at each other at once and hear what is spoken by the other. When information can be going in to directions at once we call it FULL DUPLEX. Now imagine those same two people using two orange juice cans connected with a string instead of a phone. Only one person can talk, the other must listen until the speaker is done. Then the cans must be switched from ear to mouth at one end and vice versa at the other end to talk back and be understood. This is an example of a HALF DUPLEX communication. Most telecommunications you will run into will be Full Duplex.

This stuff isn't really that complicated, is it?

It's just like your Atari computer. The fundamental concepts are easily understandable. But if you really wan't to get into the nuts and bolts of how this all works, you can make it as complex as you desire.

Have we covered all that all I need to know?

Just about...I'D just like to remind you that like any other piece of equipment on your computer you also need a program to control the 850 interface and modem so you can use your Atari as a telecommunications terminal. The Telelink Cartridge is such a program...a rather poor one, but a terminal program nonetheless. There are lots of terminal programs to choose from, like MACE terminal and AMODEM 4.2.

Terminal? What does that mean.

It's just a term describing what's at the end of the whole connection. Look at it this way...Your computer is at one end of what we call a communications "link". At your end you have your computer...your computer connected to your 850 interface...850 connected to your modem...modem connected to the phone line...phone line connected to the other person's modem...connected to another interface...connected to another computer. The computers are at the very end of each side of the link. They TERMINATE the link...Presto! Terminals.

If you're really interested in Telecommunications, get in touch with other people who are all ready experienced. A good way to do that is join a Special Interest Group devoted to the subject. As a matter of fact there's one just starting to form in MACE. Why not join the fun?

A BRIEF TOUR ON THE MACE BBS (313) 589-0996

All input that the user types in the following scenario is underlined. Editorial comments are in condensed type - the rest is output from the BBS

The first thing we see is:

HIT <RETURN> ~

What do you do? Why just hit the return button on your Atari!
Now don't let the next question confuse you. Just remember
this! Ataris do not need line feeds, so if anybody ever asks,
just say no.

DO YOU REQUIRE LINE FEEDS <Y/N>?N

Well that was easy enough. The first thing that the Bulletin
Board sends us is called the Welcome Message. It's kind of an
introduction to let you know who you're talking to.

```
[#####]
|
|  Michigan Atari Computer
|      Enthusiasts
|
|  Atari Message and Information
|      System (AMIS)
|
|  The Original Round-the-clock
|      Atari-Based Bulletin Board
|
|
|      A Free Service of
|
|      M.A.C.E. PO BOX 2785
|      Southfield, Michigan 48037
|
| [#####]
```

ENTER YOUR NAME ?Robert Boole
FROM CITY,STATE ?Detrit, Mi
YOU ARE Robert Boole
CALLING FROM Detrit, Mi

Whoops! I made a spelling mistake! Hope I get a chance to
correct it.

HAVE I GOT THAT RIGHT <Y/N>?N

ENTER YOUR NAME ?Robert Boole

FROM CITY,STATE ?Detroit, Mi
YOU ARE Robert Boole
CALLING FROM Detroit, Mi
HAVE I GOT THAT RIGHT <Y/N>?Y

You are caller number 8760
Logging name to disk...

The system will pause here for a bit while it writes
your name out to disk. Please always use your correct name and
address...we like to keep track of where people call from. The
next message is called the BULLETINS. It contains current
information and notes for all callers.

```
*****
*  NEXT MACE MEETING IS 12/21/82  *
*  SOUTHFIELD PAVILLION  7:00 PM  *
*      10 1/2 MILE & EVERGREEN    *
*                               *
*  AMODEM4 OPTION ADDED  11/28/82  *
*  REPORT ANY PROBLEMS AT LOG-OFF  *
*                               *
*  M.A.C.E. & T.H.E. TERMINAL     *
*  PARAMETERS-SEE MESSAGE #28     *
*                               *
*  M.A.C.E. MEMBERSHIP & NEWS-    *
*  LETTER-$15/YR ($20/YR AFTER JAN *
*  1ST)-ALSO SEE MESSAGE #717    *
*                               *
*  DOWNLOAD FILES ARE UPDATED    *
*      EVERY TWO WEEKS           *
*  LAST UPDATE 12/06/82          *
*  FILE DOWNDOC CONTAINS A BRIEF  *
*  DESCRIPTION OF DOWNLOAD FILES  *
*****
```

IS THIS YOUR FIRST TIME ON THIS BBS?Y
/CTRL=~/ ^S PAUSE, ^Q RESUME, ^X QUIT

This means is I want to temporarily halt all these
characters whizzing by so I can read 'em at my slow pace I can
do so by holding down the CTRL key on my keyboard and hitting
the "S" key. To continue, I can hold down CTRL again and hit the
"Q" key. If I find myself in the middle of a long message I
don't want to read holding CTRL down and hitting "X" will abort
the current function.

NEW USER INFORMATION ----
THIS B.B.S. IS BASED ON THE
ATARI COMPUTER, SO SOME FUNCTIONS
ARE DIFFERENT FROM OTHER B.B.S.
USE THE 'Q' COMMAND TO SCAN MESSAGE
SUBJECTS, USE THE 'R' COMMAND TO
RETRIEVE MESSAGES. WHEN ENTERING
MESSAGE NUMBERS ENTER NUMBERS WITH

COMMAS BETWEEN THE MESSAGE NUMBERS,
EXAMPLE: 1,20,5

OR 1-5 TO RETRIEVE A RANGE
USE THE 'H' (HELP) COMMAND IF YOU
NEED MORE INFORMATION.

*** END OF FILE ***

Good grief! What are all these funny letters? I'm really
puzzled. Why not just type a question mark...that's how I feel
right now.

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?I

~FUNCTIONS---

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

A=ASCII/ATASCII SWITCH
B=REPRINT BULLETINS
C=PRINT CALLERS
D=DOWNLOAD FILE
E=ENTER A MESSAGE INTO SYSTEM
F=LIST DOWNLOAD FILE NAMES
G=GOOD-BYE (LEAVE SYSTEM)
H=HELP WITH FUNCTIONS
L=LINE FEED (ON/OFF)
Q=QUICK SUMMARY OF MESSAGES
R=RETRIEVE MESSAGES
S=SUMMARIZE MESSAGES
T=TIME AND DATE
W=REPRINTS WELCOME MESSAGE
X=EXPERT USER SWITCH
?=PRINTS THIS LIST

*** END OF FUNCTIONS ***

Well that's a little more help. Hmm...according to the list
"H" is for Help with functions.."

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?H

USER HELP---

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

A-- ASCII/ATASCII SWITCH. CHANGES
CONTROL CHARACTER SETS BETWEEN
ASCII AND ATASCII.
B-- BULLETINS-REPRINTS BULLETINS
RECEIVED AT ENTRY TO THE BBS.
C-- PRINT CALLERS. LISTS THE NAMES
AND ADDRESSES OF CALLERS TO THE
BULLETIN BOARD.
D-- DOWNLOAD FILE. SEND A PROGRAM TO
YOUR TERMINAL. USE THIS COMMAND

IN ATASCII MODE OR INVERSE TEXT
WILL NOT BE SENT CORRECTLY.

E-- ENTER MESSAGE. ALLOWS YOU TO
ENTER A MESSAGE INTO THE SYSTEM.
'E' COMMANDS ARE BASICALLY SELF-
EXPLANATORY. A CARRIAGE RETURN
AT THIS POINT WILL LIST OUT
THE COMMAND MENU FOR ENTRIES.
THE (E)DIT COMMAND ALLOWS YOU TO
CHANGE AN ENTIRE LINE BUT NOT
JUST CHANGE PART OF IT. MAKE
SURE WHEN YOU ARE DONE WITH THE
MESSAGE TO FILE IT WITH THE
(S)AVE COMMAND.

F-- LIST DOWNLOAD FILE NAMES. FILES
MAY BE SENT WITH THE D-DOWNLOAD
COMMAND.

G-- GOODBYE. EXIT PROGRAM.

H-- HELP. PRINTS THIS LIST.

K-- KILL A MESSAGE. USE THIS TO
DELETE A MESSAGE FROM THE FILE.
A PASSWORD MAY BE NECESSARY IF
ONE WAS USED AT THE TIME OF
MESSAGE ENTRY.

L-- LINE FEED ON/OFF. NORMALLY OFF.
FOR TERMINALS THAT NEED AN EXTRA
LINE-FEED CHARACTER TO ADVANCE
TO THE NEXT LINE.

Q-- QUICK SCAN. AN ABBREVIATED
SCAN. SEE 'S'

R-- RETRIEVE MESSAGES. ALLOWS YOU
TO RETRIEVE A MESSAGE FROM THE
MESSAGE FILE.

S-- SUMMARIZE MESSAGES. ALLOWS YOU
TO SCAN A RANGE OF MESSAGES AT
THE MESSAGE NUMBERS YOU SPECIFY.

T-- TIME AND DATE. GIVES YOU THE
CURRENT TIME AND DATE.

W-- WELCOME-REPRINTS WELCOME MESSAGE
RECEIVED AT SYSTEM ENTRY.

X-- EXPERT USER. SHORTENS SOME
SYSTEM PROMPTS.

?-- LIST CURRENT FUNCTIONS.

*** END OF USER HELP ***

Hey that's a lot better. Let's try something simple...
how about "T" for time.

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?T

TIME: 17:45:53 DATE: 12/12/82

Seems straightforward enough...Let's see what a "Q"
for quick summary of messages will do...

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(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?!Q

~QUICK SCAN---

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

FIRST MSG# 26 LAST MSG# 1619

OK I guess from reading the previous instructions I can just give it a range of message numbers...I'll try and keep it small for the first time.

MSG# FROM-TO <RETURN>=EXIT?1575-1590

1579. COPY PROGRAMS

1580. BILL OLEARY

1581. OTHER MICH BBS

1584. KEYBOARD FOR THE 400

1585. TALK A LOT

1587. AMIS BBS Program

1588. PART TIME HELP WANTED

1589. TALK A BIT

MSG# FROM-TO <RETURN>=EXIT?

Thats interesting...let's see if I can get a summary of the ones that interest me using the "S" command"

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?!S

SUMMARY---

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

FIRST MSG# 26 LAST MSG# 1619

MSG# FROM-TO <RETURN>=EXIT?1580,1585-1589

MSG# 1580 DATE:12/02/82 TIME:00:55:48

FROM: RON KRAMER

TO: BILL OLEARY

SUBJ: BILL OLEARY

=====

MSG# 1585 DATE:12/02/82 TIME:18:02:56

FROM: DANNY

TO: ALL

SUBJ: TALK A LOT

=====

MSG# 1587 DATE:12/03/82 TIME:00:33:33

FROM: greg weir

TO: SYSOP

SUBJ: AMIS BBS Program

=====

MSG# 1588 DATE:12/03/82 TIME:01:39:27

FROM: HOWARD RABOTNICK

TO: ALL

SUBJ: PART TIME HELP WANTED

=====

MSG# 1589 DATE:12/03/82 TIME:15:21:33

FROM: JON

TO: ALL

SUBJ: TALK A BIT

=====

MSG# FROM-TO <RETURN>=EXIT?

Enough foolin' around...think I'll try and read one..

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?!R 1589,1584

RETRIEVE MESSAGES

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

FIRST MSG# 26 LAST MSG# 1619

MSG# 1589 DATE:12/03/82 TIME:15:21:33

FROM: JON

TO: ALL

SUBJ: TALK A BIT

When trying to use the Talk a Bit mode, the screen would only turn off DMA and go into vertical blank for a second. So I searched through the program and found a solution line 400 Reads:400 GOTO 160;change this line to:400 GOTO 380; the only problem is after you use the mode you have to hit the SYSTEM RESET button then rerun the program. The digitized voice should now be saved in a buffer. Also if you wish to have Print the numbers command to print the numbers to the screen instead of the printer change the OPEN statements in lines 420 and 520 to S:(instead of P!)

MSG# 1584 DATE:12/02/82 TIME:08:00:29

FROM: JOE KELLY

TO: ALL

SUBJ: KEYBOARD FOR THE 400

WAS WONDERING IF ANYONE HAS SEEN OR PURCHASED THE B-KEY 400 KEYBOARD FOR THE400. HAVE HEARD THAT IT IS A FULL-STROKE KEYBORAD THAT REPLACES THE FLAT PANEL, AND INSTALLS IN ABOUT 2 MINUTES. THEY SAY THE LAYOUT OF THE KEYS IS A LITTLE DIFFERENT AND I WOULD LIKE TO KNOW IF THIS WOULD AFFECT ANYTHING. WOULD APPRECIATE INPUT. THANKS

MSG# FROM-TO <RETURN>=EXIT?

Now we're cruising. I'm really feeling lucky...how about "E" for entering a message? In fact, I'm thru with talking to myself for a while...see if you can figure out what follows by referring back to the help listing..

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?!E

ENTER MESSAGE---

SUBJECT: telecommunications

TO: <RETURN>=ALL

TO: ALL

ENTER PASSWORD REQUIRED TO KILL MSG:

ENTER MESSAGE, NULL LINE WHEN DONE

1 Just a test to see if I can successfully leave a message.

2 Let's see ujs it works

3

(A)dd,(E)dit,(L)ist,(Q)uit,(S)ave ?L

1 Just a test to see if I can successfully leave a message.

2 Let's see ujs it works

(A)dd,(E)dit,(L)ist,(Q)uit,(S)ave ?E

EDIT WHICH LINE 1-2 ?2

OLD LINE 2 READS:

2 Let's see ujs it works

CHANGE TO: <RETURN>=NO CHANGE

2 Let's see if it works

EDIT WHICH LINE 1-2 ?

(A)dd,(E)dit,(L)ist,(Q)uit,(S)ave ?S

SAVING MESSAGE....

SAVED AS MSG#1620

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?;R 1620

RETRIEVE MESSAGES

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

FIRST MSG# 26 LAST MSG# 1620

MSG# 1620 DATE:12/12/82 TIME:17:51:59

FROM: Robert Boole

TO: ALL

SUBJ: telecommunications

Just a test to see if I can successfully leave a message.

Let's see if it works

MSG# FROM-TO <RETURN>=EXIT?

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?;K

KILL MESSAGE

FIRST MSG# 26 LAST MSG# 1620

KILL MESSAGE# <CR>=EXIT?1620

MSG# 1620 DATE:12/12/82 TIME:17:51:59

FROM: Robert Boole

TO: ALL

SUBJ: telecommunications

=====

PASSWORD=

~MESSAGE DELETED

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?;C

CALLERS---

FIRST DATE:12/01/82 LAST DATE:12/12/82

STARTING DATE MM/DD/YY ?12/01/82

SEARCHING CALLERS...

/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT

CALLER: DAVE

FROM: ROCH.MICH

AT: 00:32:16 ON: 12/01/82

CALLER: RALPH TUCKER

FROM: GRAND RAPIDS, MICH

AT: 01:41:36 ON: 12/01/82

CALLER: KEVIN KEEGAN

FROM: ALEXANDRIA, VA

AT: 02:59:27 ON: 12/01/82

CALLER: LARRY HITZ

FROM: AMIS-CHICAGO

AT: 03:23:21 ON: 12/01/82

CALLER: BRAD KONIA

FROM: EASTON,PA

AT: 06:43:40 ON: 12/01/82

CALLER: ELI CARTELLA

FROM: PORT HURON, MICHIGAN

AT: 07:48:57 ON: 12/01/82

CALLER: SHELDON LEEMON

FROM: MACE

AT: 09:41:55 ON: 12/01/82

Well that's enough for right now...let's say goodbye

(A,B,C,D,E,F,G,H,K,L,Q,R,S,T,W,X)

OR ?;G

ANY COMMENTS <Y/N> ?Y

ENTER COMMENTS

>Thanks a lot...that was fun

>

THANKS FOR CALLING Robert Boole

PLEASE CALL AGAIN...

*** END OF CONNECTION ***|

**NEXT MONTH:
Upload & Download!**

Legionaire
A game by Chris Crawford
from Avalon Hill

Review by Jerry Aamodt

During my college days, one of the new fascinations in the game field was the advent of the board wargame. For those of us who really go back, you can say the game of chess is really a war game, though the specific field of play is not defined. Avalon Hill was one of the early developers of war games, and my copy of their Tactics II game still has all the pieces, albeit the box is worn. During the evenings after study, the game board would be brought out and future generals would fight WWII, Gettysburg, or whatever was available.

The problem then was the tedious movement of the playing pieces, and the continuous rolling of the die. With the advent of the computer, a lot of the tedium was removed, and invisible dice were rolled for you in such classic computer games as Eastern Front. In both these forms the game lacked one fundamental needed to add realism. In battle, plans don't always work, and you don't have the time to idly review the field of play. As a penetration occurs you must exploit your advantage in a timely fashion. Small defeats must be dealt with quickly or your whole strategy will flounder.

In Legionaire, Chris Crawford has tried to enter this realistic element into the play of the game, and for the most part, succeeds. Once you press the start button, the game is on, and unless you move, you will be attacked in place. You may determine the enemy, its strength, and the number of units you command. Yes, you can win this game.

The graphics are clean and well defined. The forces are represented by well drawn symbols. As a purist, I was dissatisfied with the lack of specific unit designation, visible on the board. It is necessary to place the cursor over a unit to identify it, and at the higher levels, this is essential for good play. I am forced to concede that this is still a bit beyond the current graphics capabilities of most home computers. The movement of players is well orchestrated, and at the higher levels of skill the computer plays extremely well.

I would have preferred my forces, whom I naturally considered the friendlies, to be in traditional blue.

After a couple of trial runs, I found the game play to be smooth, even for my nine year old. You need a good joystick and a fast eye. As the armies engage, your preprogrammed plans come unwound and instantaneous decisions are needed to disengage, change direction of attack, or follow up on a victories. As the number of legions you command increase so does your span of control and the difficulty of controlling the battlefield. You relish the short breaks you get when the telephone rings and can hit the SELECT button to put you on pause with a clear conscience. You can quit if the war isn't going to your liking. It is possible to win, and one on one, with skillful use of terrain and maneuver I was able to beat the top two opponents once. At the lower levels, it's a toss up depending on your skills.

This is a good game if you're into strategy. It does add the realism of time, with the principles of maneuver. During intense conflict I don't think you have enough time to properly command your units, but then in war, you don't always have the time either. Both my nine year old son and I liked the game. At \$35.00 and requiring 16K for Legionaire on cassette, 32K on disk.

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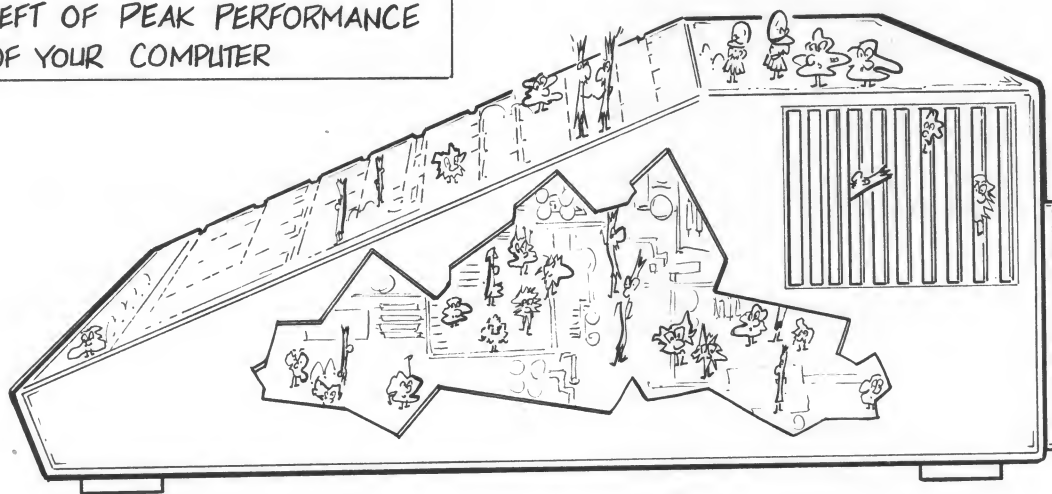
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DOCUMENTATION FOR THE AMODEM
VERSION 4 TERMINAL PROGRAM.
by Ron Luks

This program will permit the ATARI modem user to access an RCPM BBS that runs under the CP/M operating system. Also SOME ATARI BBS Systems like ARCADE, MACE, and GRASS that feature the Christensen protocol option on download and upload. It also allows ATARI to ATARI file transfer. It features uploading and downloading at 300 baud and is extremely user friendly.

When RUN from BASIC with the 850 interface RS232 handler booted in, it will go into terminal mode, at which time the user should dial the BBS. Some systems are of the RING-BACK variety, so you should be prepared to let the phone ring ONCE for those systems and then hang up and re-dial 10-15 seconds later.

When the system connects, type a few <return>s until the BBS responds. Follow the HELP commands of the system from here.

TRANSLATION - SELECT T will toggle the translation mode between ATARI (No translation) and ASCII (Light translation). Use ATARI on ATARI Systems and ASCII on RCPM Systems.

MENU - For ATARI Disk systems, you may list your Menus with SELECT M to find files or space for new files.

DUPLEX - For ATARI to ATARI file transfer, you will need Half Duplex Since AMODEM sends no echo. You may toggle it with SELECT P. NOTE; Use ATARI Mode on each end.

DOWNLOADING - To download from the BBS you must remember that it is controlled by a file called XMODEM. To have this file send a program to your ATARI, you must press <SELECT> key and type R to tell the ATARI to get ready to receive from XMODEM. You must then provide a FILESPEC to which the ATARI will save the program. This does not necessarily have to be the same name as the RCPM has it saved as. Once back in terminal mode, type the command; XMODEM S <filename.ext> and then RETURN at which time the XMODEM controller will respond with a statement that it has opened its file and is prepared to transmit to your

ATARI. To begin the procedure, press the START key and sit back and relax. The XMODEM will send the file, which can be of any type. The screen will turn RED and when the file has been downloaded, your ATARI will save it to your filespec. When the screen turns back to BLUE, the process is complete.

TO UPLOAD - Reverse the procedure by pressing the SELECT and S keys to indicate you will Send to XMODEM the ATARI <filespec><RETURN>. Then type; XMODEM R <filename.ext> and RETURN which will tell XMODEM to prepare a filearea under that name to store the program you are going to send TO the BBS. To initiate the upload, press the START key and the computers will take over. Your screen will turn GREEN until the transfer is completed.

TO CAPTURE DATA - Press SELECT then C and enter a filespec. To start press the START or OPTION key. All data that you see on the screen will be saved to memory. You may toggle the capture on and off with the OPTION key. When you are done, or the buffer is full, you can press; SELECT and D. This will Dump the memory to your filespec.

Please leave any questions on the A.R.C.A.D.E. BBS at 313-978-8087 or Compuserve SIG/ATARI: 70355,602 or write:

Jim Steinbrecher
37220 Tricia Drive
Sterling Hts, Mi 48077



AMODEM 4.2

by Jim Steinbrecher - M.A.C.E.
A Telecommunications Program for Atari 400/800 computers
equipped with 850 Interface and RS232C Modem

featuring Upload/Download
& Atari XMODEM File Transfer

```
5000 GOSUB 5100:IF X THEN 6000:REM D
5040 GOSUB CLM:GOSUB 2010:CLOSE #FILE
5050 LPRINT "DL ";FILE$;" ";TIME$
5060 TRAP 5800:OPEN #FILE,4,ZERO,FILE$:TRAP 8080:GOSUB RFILE
5070 ? #MODEM;"FILE: ";FILE$:GOTO 910
5100 FILE$="D2:":? #MODEM;"RETURN=EXIT, FILE NAME >";:IF LEN(L$)>1 THEN IF L$(2,
2)="N" THEN FILE$(2,2)="1"
5110 GOSUB GLINE:IF L$="" THEN POP :GOTO MAIN
5120 IF LEN(L$)>C8 THEN L$(9)=""
5130 FOR X=WON TO LEN(L$):IF L$(X,X)>"Z" THEN L$(X,X)=CHR$(ASC(L$(X,X))-32)
5140 IF L$(X,X)>="A" AND L$(X,X)<="Z" THEN FILE$(LEN(FILE$)+WON)=L$(X,X)
5150 IF L$(X,X)>="0" AND L$(X,X)<="9" THEN FILE$(LEN(FILE$)+WON)=L$(X,X)
5160 NEXT X:FILE$(LEN(FILE$)+WON)= ".UDL":IF FILE$(4,4)<"A" THEN POP :GOTO MAIN
5170 IF LEN(FILE$)<C8 THEN POP :GOTO MAIN
5180 ? #MODEM;"ARE YOU USING THE CHRISTENSEN XMODEM"? #MODEM;"FILE TRANSFER PRO
TOCOL";
5190 GOSUB 372:RETURN
5200 GOSUB CLM:CLOSE #FILE:REM U
5210 OPEN #FILE,6,ZERO,"D1:*.*XX":BUFFER$="":TEMP$=""
5220 INPUT #FILE,BUFFER$:IF BUFFER$(4,5)<>" F" THEN 5220
5230 BUFFER$(LEN(BUFFER$)+WON)=CR$:CLOSE #FILE:GOSUB OPM:? #MODEM;BUFFER$:GOSUB
5100:L=X
5240 GOSUB CLM:GOSUB 2010:CLOSE #FILE:FILE$(2,2)="1":IF L THEN LPRINT "XUP ";FIL
E$;" ";TIME$:GOTO 5260
5250 LPRINT "UP ";FILE$;" ";TIME$
5260 TRAP 5290:OPEN #FILE,4,ZERO,FILE$:TRAP 8080
5270 CLOSE #FILE:GOSUB OPM:? #MODEM;CR$;BEL$;"FILE ALREADY EXISTS!!!"
5280 GOTO MAIN
5290 CLOSE #FILE:GOSUB OPM:TRAP 8080:BUFFER$="":IF L THEN 6500
5300 ? #MODEM;"UPLOAD --- ENTER FILE <CR>=EXIT "
5310 ? #MODEM;">";:IL=120:GOSUB GLINE
5320 IF L$<>" " THEN BUFFER$(LEN(BUFFER$)+WON)=L$:BUFFER$(LEN(BUFFER$)+WON)=CR$:G
OTO 5310
5340 IF LEN(BUFFER$)=ZERO THEN GOTO MAIN
5350 ? #MODEM;"* SAVING FILE *":GOSUB CLM:OPEN #FILE,C8,ZERO,FILE$
5360 ? #FILE;BUFFER$;:CLOSE #FILE:GOTO MAIN
5400 GOSUB CLM:CLOSE #FILE:FILE$="D2:*.*UDL":IF LEN(L$)>1 THEN IF L$(2,2)="N" THE
N FILE$(2,2)="1"
5410 OPEN #FILE,6,ZERO,FILE$:BUFFER$="":TEMP$="FILE DIRECTORY---":GOTO 5440
5420 INPUT #FILE,TEMP$:IF TEMP$(4,5)=" F" THEN 5470
5430 TEMP$(11,13)=" -"
5440 BUFFER$(LEN(BUFFER$)+WON)=TEMP$
5450 BUFFER$(LEN(BUFFER$)+WON)=CR$
5460 GOTO 5420
5470 BUFFER$(LEN(BUFFER$)+WON)="* = OBJECT OR BOOT FILE"
5480 CLOSE #FILE:GOSUB 310:GOSUB 160:GOTO MAIN
5800 TRAP 8080:GOSUB OPM:? #MODEM
5810 ? #MODEM;"CAN'T FIND THAT FILE"
5820 GOTO MAIN
```


DOCUMENTATION FOR THE AMODEM VERSION 4 TERMINAL PROGRAM.

by Ron Luks

This program will permit the ATARI modem user to access an RCPM BBS that runs under a CP/M operating system. Also SOME ATARI Systems like ARCADE, MACE, and GAMES feature the Christensen protocol for download and upload. It also allows ATARI file transfer. It features upload and downloading at 300 baud and is extremely friendly.

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A Telecommunications Program for Atari 400/800 computers
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& Atari XMODEM File Transfer

FALL-XMAS '82

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FILE

LEN(L\$)>1 THEN IF L\$(2,

R\$(ASC(L\$(X,X))-32)
E\$)+WON)=L\$(X,X)
E\$)+WON)=L\$(X,X)
A" THEN POP :GOTO MAIN

MODEM;"FILE TRANSFER PRO

:? #MODEM;BUFFER\$:GOSUB

L THEN LPRINT "XUP ";FIL

BY EXISTS!!!"

N 6500

(LEN(BUFFER\$)+WON)=CR\$:G

ZERO,FILE\$

THEN IF L\$(2,2)="N" THE
CTORY---":GOTO 5440

```

6000 GOSUB CLM:CLOSE #FILE
6010 GOSUB 2010:LPRINT "XDL ";FILE$;" ";TIME$
6020 TRAP 5800:OPEN #FILE,4,ZERO,FILE$:TRAP 8080:GOSUB RFILE:T=LEN(BUFFER$):F=((
T/128)-INT(T/128))*128
6025 FOR I=ZERO TO 127:BUFFER$(LEN(BUFFER$)+1)=CHR$(F):NEXT I
6030 ? #MODEM;FILE$;" READY TO SEND"? #MODEM;"^X TO CANCEL"
6040 DIR=ZERO:GOSUB GETCHR:IF X=24 THEN GOTO MAIN
6045 AM=AMODE:LM=LMODE:AMODE=32:LMODE=ZERO:GOSUB OPM
6050 FOR T=WON TO 10:PUT #MODEM,WON:F=ZERO:PUT #MODEM,DIR+1:PUT #MODEM,254-DIR
6090 A=DIR*128+ADR(BUFFER$)
6100 FOR I=0 TO 127:X=PEEK(A+I):PUT #MODEM,X:F=F+X:NEXT I
6130 F=ASC(CHR$(F)):PUT #MODEM,F
6140 GOSUB GETCHR:IF X=24 THEN T=10
6160 IF X<>6 THEN 6180
6170 T=10
6180 NEXT T:DIR=DIR+1
6200 IF X<>6 THEN ? #MODEM;"* ABORTED *":GOTO 6400
6300 IF (DIR+1)*128<=LEN(BUFFER$) THEN 6050
6310 PUT #MODEM,4:PUT #MODEM,0
6400 DIR=0:AMODE=AM:LMODE=LM:GOTO MAIN
6500 TRAP 8080:A$=""
6510 FOR I=WON TO C8:A$(LEN(A$)+1)="":NEXT I:A=ADR(A$)
6530 ? #MODEM;"READY TO RECEIVE, ^X TO CANCEL"
6540 AM=AMODE:LM=LMODE:AMODE=32:LMODE=64:GOSUB OPM:L=21
6550 FOR T=WON TO 10:TOUT=0:PUT #MODEM,L:L=6
6570 GET #MODEM,SOH:F=SOH:IF SOH<>WON THEN 6640
6580 FOR I=0 TO 129
6590 STATUS #MODEM,X:IF PEEK(747) THEN GET #MODEM,X:POKE A+I,X:F=F+X:NEXT I:GOTO
6620
6600 TOUT=TOUT+1:IF TOUT>200 THEN GOTO 6850
6610 GOTO 6590
6620 GOSUB GETCHR:F=ASC(CHR$(F)):IF X=F THEN BUFFER$(LEN(BUFFER$)+1)=A$(3,130):G
OTO 6640
6630 FOR L=WON TO 400:NEXT L:L=21:? "NAK ";T:GOTO 6650
6640 T=10
6650 NEXT T
6700 IF SOH=4 AND L=6 THEN 6800
6710 IF SOH<>WON OR L<>6 THEN 6870
6720 GOTO 6550
6800 PUT #MODEM,6:GOSUB OPM:? #MODEM:? #MODEM;"* SAVING FILE *"
6810 TRAP 8080:GOSUB CLM:OPEN #FILE,C8,ZERO,FILE$
6820 X$=BUFFER$(LEN(BUFFER$)):X=ASC(X$)
6830 FOR I=LEN(BUFFER$)-127+X TO LEN(BUFFER$):IF BUFFER$(I,I)<>X$ THEN X=128
6840 NEXT I
6860 ? #FILE;BUFFER$(WON,LEN(BUFFER$)-128+X);:CLOSE #FILE:GOTO 6880
6870 TRAP 8080:? #MODEM;"* ABORTED *"
6880 I=WON:T=WON:AMODE=AM:LMODE=LM:GOTO MAIN
7000 MSGNO$="0000":MSGNO$(5-LEN(STR$(FROM)))=STR$(FROM):REM SEARCH
7020 T=INT(LEN(BUFFER$)/40):F=INT(T*0.5+0.5):Y=F
7040 FOR X=WON TO CLOG(T+2)/CLOG(2)
7060 TSS=F*40:Y=INT(Y*0.5+0.5)
7070 IF MSGNO$>BUFFER$(TSS-39,TSS-36) THEN F=F+Y+Y
7080 F=F-Y:IF F<WON THEN F=WON
7100 IF F>T THEN F=T
7120 NEXT X:TSS=F*40
7130 IF MSGNO$>BUFFER$(TSS-39,TSS-36) AND DIR=WON THEN F=F+WON
7140 IF MSGNO$<BUFFER$(TSS-39,TSS-36) AND DIR=-WON THEN F=F-WON
7150 RETURN
8000 GOSUB CLM:CLOSE #FILE:OPEN #FILE,4,ZERO,FILE$:REM RFILE
8010 TRAP 8070:A$(255)=" ":BUFFER$=""

```



```

8020 XIO 7,#FILE,4,ZERO,A$:BUFFER$(LEN(BUFFER$)+WON)=A$:GOTO 8020
8070 TRAP 8080:IF PEEK(856) THEN BUFFER$(LEN(BUFFER$)+WON)=A$(WON,PEEK(856))
8080 IF PEEK(195)<>136 AND PEEK(195)<>139 THEN 8120
8085 TRAP 8080:IF PEEK(195)=139 THEN POP:POP:POP:POP:POKE 195,1:GOTO WAITRIN
G
8100 GOTO 310
8120 ERR=PEEK(195):GOSUB CLM:CLOSE #FILE
8130 LPRINT "ERROR- ";ERR;" LINE # ";256*PEEK(187)+PEEK(186)
8140 GOSUB 310
8150 ? #MODEM;CR$;"SYSTEM ERROR --- TRY AGAIN."
8160 POP:POP:POP:GOTO MAIN
9000 X=ZERO:FROM=X:TU=X:DIR=X:IF L$="" THEN RETURN:REM PARSE
9020 X=X+WON:IF X>LEN(L$) THEN 9100
9030 IF L$(X,X)>="0" AND L$(X,X)<="9" THEN FROM=FROM*10+VAL(L$(X,X)):GOTO 9020
9040 IF L$(X,X)<>"-" THEN 9100
9050 X=X+WON:IF X>LEN(L$) THEN 9300
9060 IF L$(X,X)>="0" AND L$(X,X)<="9" THEN TU=TU*10+VAL(L$(X,X)):GOTO 9050
9070 GOTO 9300
9100 TU=FROM:DIR=WON:GOTO 9400
9300 DIR=WON:IF TU<FROM THEN DIR=-WON
9400 IF X<LEN(L$) THEN L$=L$(X+WON):RETURN
9420 L$="":RETURN
10000 LOCAL=ZERO:BEL$=CHR$(253):DEL$=CHR$(156):BS$=CHR$(126):REM WAITRING
10010 AMODE=32:LMODE=ZERO:XMODE=ZERO:GOSUB 1530
10020 GRAPHICS ZERO:?? MSGS;" MESSAGES, LAST MESSAGE # ";HMSG
10030 GOSUB CLM:XIO 38,#MODEM,ZERO,ZERO,"R:"
10040 XIO 34,#MODEM,128,ZERO,"R:"
10050 GOSUB 2010:LPRINT "=====";TODAY$;" ===== ";TIME$;" ====="
10060 XIO 34,#MODEM,192,ZERO,"R:"
10070 XIO 36,#MODEM,ZERO,ZERO,"R:"
10080 OPEN #MODEM,13,ZERO,"R:"
10090 XIO 40,#MODEM,ZERO,ZERO,"R:"
10110 ? #MODEM;"ATE0 S4=24 S2=255 S7=15"
10120 FOR X=WON TO 50:NEXT X
10130 POKE 752,WON:POKE 77,ZERO
10140 GOSUB 10900
10150 GOSUB 2010:POSITION 2,5:?"TIME: ";TIME$;" DATE: ";TODAY$:IF PEEK(53279)
=3 THEN 28000
10160 IF PEEK(53279)=5 THEN GOSUB CLM:LOCAL=WON:OPEN #MODEM,13,ZERO,"E:":GOTO 40
0
10170 STATUS #MODEM,X:IF PEEK(747) THEN GOSUB 10900:?"CHR$(253)":GOTO 11000
10180 GOTO 10150
10900 STATUS #MODEM,X:IF PEEK(747) THEN GOSUB GETCHR:GOTO 10900
10910 ? CHR$(253):RETURN
11000 ? "ANSWERING CALL"
11010 ? #MODEM;"ATA":TOUT=1900
11020 STATUS #MODEM,X:IF PEEK(747)=0 THEN 11020
11030 STATUS #MODEM,X:IF PEEK(747)=0 THEN TRAP 8080:GOSUB 310:GOTO 400
11040 GOSUB GETCHR:IF X=73 THEN GOTO WAITRING
11050 GOTO 11030
12000 ? #MODEM;"CHAT MODE, I'LL GET THE SYSOP....."
12010 ? NAME$;" FROM ";ADDRES$:?" ? "PRESS SELECT TO BEGIN, ^X TO END"
12020 FOR F=1 TO 5:?"CHR$(253)":FOR T=1 TO 50:NEXT T:IF PEEK(CON)=5 THEN 13000
12030 NEXT F:FOR X=1 TO 500:IF PEEK(CON)=5 THEN 13000
12040 NEXT X:?" #MODEM;"SYSOP IS NOT HERE":GOTO MAIN
13000 GOSUB CLM:?"IN CHAT MODE":GOSUB OPM:?" #MODEM;"CHAT MODE: PRESS CTRL<X> TO
END":POKE 764,255
13010 STATUS #MODEM,X:IF PEEK(747)=0 THEN 13040
13020 GET #MODEM,X:PUT #MODEM,X:IF X=8 THEN X=126
13030 ? CHR$(X):IF X=24 THEN GOSUB CLM:GOTO MAIN
13040 IF PEEK(764)=255 THEN 13010

```

```

13050 GET #3,X:IF X=126 THEN ? #MODEM;BS$;" ";BS$;;GOTO 13030
13060 PUT #MODEM,X:GOTO 13030
28000 GOSUB 28100:POKE 752,ZERO
28020 END
28100 GOSUB CLM:CLOSE #FILE:OPEN #FILE,C8,ZERO,"D:CONFIG"
28110 ? #FILE;CSECT;CR$;CBYTE;CR$;CALLNO;CR$;MSECT;CR$;MBYTE;CR$;MSG$;CR$;HMSG:C
LOSE #FILE
28120 RETURN
29000 DIM L$(120),FILE$(16),NAME$(40),ADDRES$(40),FUNC$(20),MTH$(24),CTRL$(40):R
EM INIT
29010 DIM MSG$(2100),PROMPT$(50),FROM$(40),FR$(40),MSGNO$(4),SUBJ$(33),TEMP$(120
),PAS$(40),A$(255)
29020 DIM SCIO$(7):SCIO$="HHH*LVD":ZERO=0:WON=1:FILE=WON:MODEM=2:C8=8:CON=53279
29030 DIM CR$(WON),BEL$(WON),DEL$(WON),BS$(WON),X$(WON),TODAY$(C8),DATE$(C8),TIM
E$(C8)
29035 DIM MIF$(14),MDF$(14),CDF$(14):READ MIF$,MDF$,CDF$
29040 MTH$="312831303130313130313031"
29045 CTRL$="/CTRL=^/ ^S PAUSE, ^Q RESUME, ^X QUIT"
29050 ? CHR$(125):? "B.E.S."
29060 GOSUB 1530:?"ENTER DATE MM/DD/YY ";;INPUT TODAY$
29070 ? "ENTER TIME HH:MM:SS ";;INPUT TIME$?:? "WORK DISK IN ";;INPUT A$
29100 CLM=292:OPM=310:MAIN=1000:GLINE=70:LET GETCHR=20:PARSE=9000:WAITRING=10000
:RFILE=8000:SEARCH=7000
29110 FUNC$="B?HWXQTREYGLACSKDUFY":CR$=CHR$(155)
29120 OPEN #FILE,4,ZERO,"D:CONFIG"
29130 INPUT #FILE,CSECT,CBYTE,CALLNO,MSECT,MBYTE,MSG$,HMSG:CLOSE #FILE
29140 X=FRE(ZERO)-100:LPRINT "BUFF = ";X:DIM BUFFER$(X):MAXM=INT(X/40)
29160 X=((VAL(TIME$(1,2))*60+VAL(TIME$(4,5)))*60+VAL(TIME$(7,C8)))*60
29170 F=INT(X/65536):T=INT(X/256)-F*256
29180 X=X-F*65536-T*256:POKE 20,X:POKE 19,T:POKE 18,F
29190 OPEN #3,4,0,"K:":GOTO WAITRING
30000 DATA D1:MESSAGE.ISM,D1:MESSAGE.DAT,D1:CALLERS.DAT

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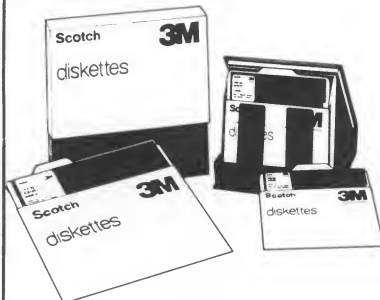


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EDUCATION GROUP NOTES

We have recently received information from the Twin Cities Atari Club. It seems that all educational groups have the same interests and problems. For this reason, we have decided to join forces with ACE (Oregon) and Twin Cities in 2 major projects: to compile 1) a listing of vendors of Educational Programs and 2) a booklet of Reviews of Educational Programs. The specific format for 'Reviews' will be in the Jan. MACE issue.

The next meeting of our Education Group will be in late January. Please call with questions or suggestions for our group.

Mark Davids 774-9709

BASIC Language SIG Report

by Richard L. Staff, Secretary SIG/BASIC MACE

I will not even attempt to give a month by month account of what our SIG/BASIC group has done, because we have already had many, many meetings. But instead will summarize what our purpose is, what we have done, and what we plan to do.

Well, our primary purpose is to help each other become better acquainted with ATARI BASIC. This means reviewing BASIC command words, using those words in program statements, and putting statements together to make a program. In order to do this we have developed a beginners level group to review and use ATARI BASIC command words and an intermediate level group to work on actual programs.

The beginners level group has already reviewed Atari's BASIC REFERENCE MANUAL and is now working its way through the ATARI BASIC book. However, the first 30 to 60 minutes of meetings tend to be an open forum for new users. For example, cursor control features and editing tricks have been discussed. Problems with using the cassette recorder or disk drive have been dealt with. Tricks in using PEEK's and POKE's periodically come up. And so on.

Members of the intermediate level group have brought in their own programs either to show off or get help with the 'bugs' (problems) they have encountered in their programs. More sophisticated BASIC programming techniques have been discussed, such as automatic DATA line creation. We have even been witness to a demonstration of using a modem to call the MACE Bulletin Board. User programs seen included Stock Analysis, Bowler League Scores, making music with Basic, and an Oil Well game. This group is now working on a members mailing list program starting from scratch so as to provide the greatest amount of learning possible. The mailing list program project has

just started and will continue to be worked on in 1983.

Assembler Language SIG

By Phil Heavin, Secretary, SIGASM
November Meeting

After our usual socializing and business meeting we skipped our beginners session due to a lack of beginners at this meeting.

Then we discussed extensions to the example program which was started last month. This program demonstrates how to write an assembly language game program. The new changes demonstrated horizontal and vertical, fine and coarse scrolling. The effect achieved is similar to the map scrolling in Eastern Front. Hopefully in future meetings other SIGASM members will be describing their enhancements to this program.

January's Meeting

January's meeting will be Thursday, the 6th at the home of Larry Burdeno in Dearborn. You can contact Larry at 563-8705 or me at 939-6213. The meeting will begin at 7:00 with socializing and free form discussion with the actual business portion starting at 7:30. We hope to see you there.

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Pre-owned software: Star Raiders \$20, Caverns of Mars, Boxed Disk edition \$19, IRIDIS 1 & 2 \$10 for both, two Atari joysticks, good condition \$10/pr, Picnic Paranoia \$18, Claim Jumper \$18. Arlan Levitan: 399-6964

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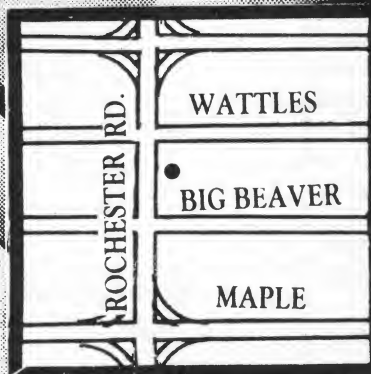
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MACE SIG GROUPS

MACE offers members the opportunity to explore specific applications of Atari Computing in Special Interest Groups (SIGS) where MACE folks with common areas of interest can meet more informally than would be possible at our general membership meetings.

The following groups have registered as official MACE Special Interest Groups!

SIG/ASSEMBLER

Manager: Tom Hunt
Secretary: Phil Heavin
939-6213

SIG/BASIC

Manager: Jim Spitzer
543-0961

BUSINESS SYSTEMS

Manager: Douglas Perenchio
776-7626

SIG/EDUCATION

Manager: Mark Davids
774-9709

SIG/FORTH

Manager: Todd Meitzner
542-1752

SIG/GAMES

Manager: Stephen Tobias
979-5740

SIG/GRAPHICS

Manager: Ken Hein
254-1761

SIG/HARDWARE

Manager: Chris Ratkowski
532-5421

SIG/NEW USERS

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645-2193

UTILITIES

Manager: Charles Godfrey
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362-9110 Work

Get involved!! Join a MACE SIG today!!!

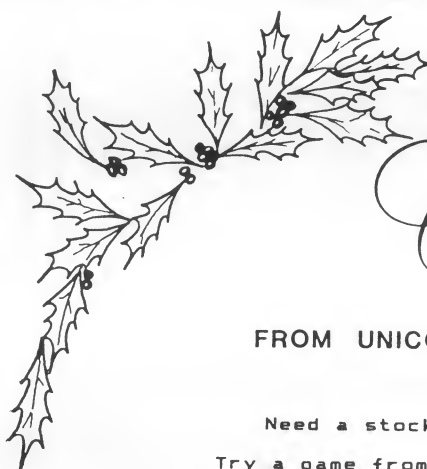
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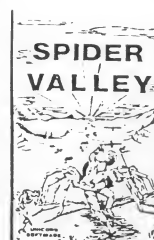
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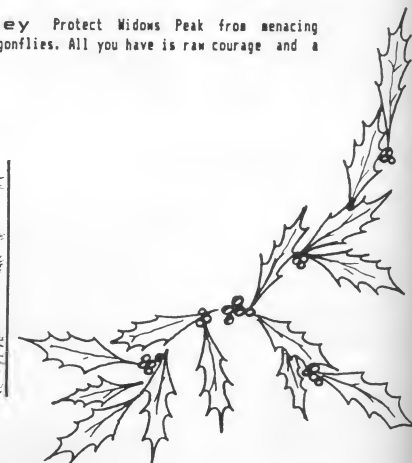
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BULLET-80 AKRON, OH.....(216) 645 0827*24
 BULLET-80 BOSTON, MA.....&(617) 266 7789*24
 BULLET-80 CHESTERLAND, OH.....(216) 729 2769
 BULLET-80 CLARKS SUMMIT, PA.....(717) 586 2112
 BULLET-80 DANBURY, CT.....#1(203) 744 4644
 BULLET-80 FAYETTEVILLE, GA.....(404) 461 9686
 BULLET-80 HAWKINS, TX.....(214) 769 3036
 BULLET-80 HOUSTON, TX.....(713) 331 2599
 BULLET-80 IRONTON, OH.....(614) 532 6920
 BULLET-80 LANCASTER, CA.....(805) 947 9925
 BULLET-80 LANGHORNE, PA.....(215) 364 2180
 BULLET-80 LITTLEFIELD, TX.....(806) 385 6843

VBULLET-80 MT. CLEMENS, MI.....(313) 465 9531

BULLET-80 ORANGE COUNTY, ANAHEIM, CA.....(714) 952 2110
 BULLET-80 REDWOOD CITY, CA.....(415) 367 1339*24
 BULLET-80 RIVERSIDE, CA.....(714) 359 3189

BULLET-80 SAN JOSE, CA.....(408) 241 0769
 BULLET-80 SEYMOUR, CT.....(203) 888 7952
 BULLET-80 SPRINGFIELD, IL.....(217) 529 1113
 BULLET-80 TULSA, OK.....(918) 749 0059*24

CBBS AMRAD, WASHINGTON, DC.....(703) 734 1387*24
 CBBS ATLANTA, GA.....(404) 394 4220*24
 CBBS BATON ROUGE, LA.....(504) 273 3116*24
 CBBS BLOOMINGTON, IN.....(812) 334 2522
 CBBS BOSTON, MA.....(617) 646 3610*24
 CBBS CEDAR RAPIDS, IA.....(319) 364 0811
 CBBS CHICAGO, IL.....#1 (312) 545 8086*24
 CBBS CORPUS CHRISTI, TX.....(512) 855 1512
 CBBS CPEUG/ICST GAITHERSBURG, MD.....(301) 948 5717
 CBBS LAWRENCE GENERAL HOSPITAL, BOSTON, MA... (617) 683 2119
 CBBS LICA LIMBS, LONG ISLAND, NY.....(516) 561 6590*24
 CBBS LONDON, ENGLAND..(EUROPEAN STANDARD)..(044) 1 399 2136
 CBBS LONG ISLAND, NY.....(516) 334 3134*24
 CBBS MAUDE MILWAUKEE, WI.....(414) 241 8364*24
 CBBS NW, PORTLAND, OR.....(503) 646 5510*24
 CBBS PACC, PITTSBURGH, PA.....(412) 822 7176*24
 CBBS PRINCE GEORGE, B.C., CANADA.....(604) 562 9515
 CBBS PROXIMA, BERKELEY, CA.....(415) 357 1130
 CBBS RAMS, ROCHESTER, NY.....(716) 244 9531
 CBBS TSG, TUCSON, AZ.....(602) 746 3956*24

COMM-80 OCTUG.....(714) 530 8226
 COMM-80 ORANGE COUNTY, FULLERTON, CA.....(714) 530 8226
 COMM-80 QUEENS, NY.....(212) 897 3392*24

CONNECTION-80 CANOPUS, MILWAUKEE, WI.....!(414) 281 0545*24
 CONNECTION-80 CENTEREACH, NY.....(516) 588 5836
 CONNECTION-80 DENVER, CO.....(303) 690 4566*24
 CONNECTION-80 ESCONDIDO, CA.....!(714) 746 6265
 CONNECTION-80 FREMONT, CA.....(415) 651 4147*24
 CONNECTION-80 GAITHERSBURG, MD.....(301) 840 8588*24
 CONNECTION-80 GREAT NECK, NY.....(516) 482 8491*24

VCONNECTION-80 LANSING, MI.....(517) 339 3367

CONNECTION-80 LAVAL BELE, LAVAL, QUEBEC, CN.!(514) 622 1274*24
 CONNECTION-80 LITTLE ROCK, AS.....(501) 372 0576
 CONNECTION-80 MANHATTAN, NY.....(212) 991 1664
 CONNECTION-80 ORLANDO, FL.....(305) 644 8327*24
 CONNECTION-80 PAUG, PORTLAND, OR.....(503) 281 7653
 CONNECTION-80 PETERBOROUGH, NH.....(603) 924 7920
 CONNECTION-80 TULSA, OK.....(918) 747 1310*24
 CONNECTION-80 VANMIL, MILWAUKEE, WI.....!(414) 271 7580*24

VCONNECTION-80 W. MICH. MICRO GROUP, MI.....(616) 457 1840*24

CONNECTION-80 WINTER GARDEN, FL.....(305) 877 2829*24
 CONNECTION-80 WOODHAVEN, NY.....(212) 441 3755*24
 CONNECTION-80 TAMPA, FL.....(813) 977 0989

CONFERENCE-TREE #2, SAN FRANCISCO, CA.....(415) 928 0641

CONFERENCE-TREE #3, HAYWARD, CA.....(415) 538 3580
 CONFERENCE-TREE #4, SANTA MONICA, CA.....(213) 394 1505
 CONFERENCE-TREE ANCHORAGE, AK.....(907) 344 5251
 CONFERENCE-TREE FLAGSHIP, DENVER, NJ.....(201) 627 5151*24
 CONFERENCE-TREE KELP BED, LOS ANGELES, CA....(213) 372 4800
 CONFERENCE-TREE ?, NEW JERSEY.....(201) 627 5151
 CONFERENCE-TREE VICTORIA, TX.....(512) 578 5833

FORUM-80 AUGUSTA, GA.....(803) 279 5392
 FORUM-80 CHARLESTON, SC.....(803) 552 1612*24
 FORUM-80 CLEVELAND, OH.....&(216) 486 4176
 FORUM-80 #2, DENVER, CO.....(303) 399 8858*24
 FORUM-80 EL PASO, TX.....(915) 755 1000*24
 FORUM-80 FT. LAUDERDALE, FL.....(305) 772 4444*24
 FORUM-80 HULL, ENGLAND.....(011) 44 482 859169
 FORUM-80 KANSAS CITY, MO.....#1 &(816) 861 7040*24
 FORUM-80 KANSAS CITY, MO.....&(816) 931 9316
 FORUM-80 LAS VEGAS, NV.....(702) 362 3609*24
 FORUM-80 LINDEN, NJ.....(201) 486 2956*24
 FORUM-80 MEDFORD, OR.....(503) 535 6883*24
 FORUM-80 MEDICAL, MEMPHIS, TN.....(901) 276 8196*24
 FORUM-80 MONMOUTH, BRIELLE, NJ.....(201) 528 6623*24
 FORUM-80 MONTGOMERY, AL.....(205) 272 5069
 FORUM-80 NASHUA, NH.....(603) 882 5041

VFORUM-80 PONTIAC, MI.....(313) 335 8456

FORUM-80 PRINCE WILLIAM COUNTY, VA.....(703) 670 5881*24
 FORUM-80 SAN ANTONIO, TX.....(512) 340 6720
 FORUM-80 SEATTLE, WA.....(206) 723 3282
 FORUM-80 SIERRA VISTA, AZ.....(602) 458 3850*24
 FORUM-80 SHREVEPORT, LA.....(318) 631 7107*24
 FORUM-80 WESTFORD, MA.....(617) 692 3973
 FORUM-80 WICHITA, KA.....&(316) 682 2113*24
 FORUM-80 WICHITA FALLS, TX.....(817) 855 3916

HBBS DENVER, CO.....(303) 343 8401*24
 HBBS EL PASO, TX.....(915) 592 1910
 HBBS OKLAHOMA CITY, OK.....(405) 848 9329*24
 HBBS SAN FERNANDO VALLEY.....(213) 366 4837

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 MCMS J.A.M.S. LOCKPORT, IL.....(815) 838 1020*24
 MCMS L.A.M.S. ROUND LAKE, IL.....(312) 740 9128
 MCMS MESSAGE-82, CHICAGO, IL.....(312) 622 4442*24
 MCMS METRO WEST DATABASE, CHICAGO, IL.....(312) 260 0640*24
 MCMS NC SOFTWARE, MINNEAPOLIS, MN.....(612) 533 1957*24
 MCMS WACO HOT LINE, SCHAUMBURG, IL..<PVT>....(312) 351 4374*24

MOUSE-NET NASHUA, NH.....(603) 673 9476*24
 MOUSE-NET ORLANDO, FL.....(305) 277 0473*24

MSG-80 EVERETT, WA.....(206) 334 7394

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NET-WORKS APPLE GROVE, DALLAS, TX.....(214) 644 5197
 NET-WORKS APPLE SHACK, DALLAS, TX.....(214) 644 4781*24
 NET-WORKS ARMADILLO, GRAND FORK, ND.....(701) 746 4959
 NET-WORKS AURORA, CO.....(303) 343 8401*24
 NET-WORKS BEACH BBS, PENSACOLA, FL.....!(904) 932 8271
 NET-WORKS BIG APPLE, MIAMI, FL.....(305) 948 8000
 NET-WORKS C.A.M.S., DECATUR, IL.....(217) 429 5541
 NET-WORKS CLAH, ARLINGTON HEIGHTS, IL.....(312) 255 6489
 NET-WORKS COIN GAMES, LOS ANGELES, CA.....(213) 336 5535
 NET-WORKS COMM CENTER NW3NAGAD, LAUREL, MD... (301) 953 3341
 (301) 792 0305

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 NET-WORKS COMPUTER EMPORIUM, SAN JOSE, CA....(408) 227 0227
 NET-WORKS COMPUTER PRO, FT. WORTH, TX.....(817) 732 1787
 NET-WORKS COMPUTER STATION, ST. LOUIS, MO....(314) 432 7120
 NET-WORKS COMPUTER WORLD, LOS ANGELES, CA....(213) 859 0894*24
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 NET-WORKS DALLAS, TX.....(214) 361 1386*24
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 NET-WORKS ENCINO, CA.....(213) 345 3670
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 NET-WORKS HAWAII.....(808) 521 7312
 NET-WORKS INFO-NET, COSTA MESA, CA.....(714) 545 7359
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 NET-WORKS MAGNETIC FANTASIES, LOS ANGELES, CA.(213) 388 5198
 NET-WORKS PIRATE'S HARBOR, BOSTON, MA.....(617) 738 5051
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 NET-WORKS SOFTWORX, WEST LOS ANGELES, CA....(213) 473 2754
 NET-WORKS SPARKLIN' CITY, CORPUS CHRISTI, TX.(512) 882 6569
 NET-WORKS ST. LOUIS, MO.....(314) 781 1308
 NET-WORKS WARLOCK'S CASTLE ST. LOUIS, MO....(618) 345 6638
 NET-WORKS WINESAP, DALLAS, TX.....(214) 824 7455

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 ONLINE DICKINSONS MOVIE GUIDE, MISSION, KS... (913) 432 5544
 ONLINE INDIANAPOLIS, IN.<ID#=GUES, PSWD=PASS>.(317) 787 9881*24
 ONLINE SABA, SAN DIEGO, CA.....!(714) 291 5229
 ONLINE SANTEE, CA....<ID#=GUEST, PSWD=PASS>..(714) 561 7271*24

PASBBS BELLFLOWER, CA.....(213) 531 1057
 PASBBS TORRANCE, CA.....#1 (213) 516 7089*24

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 PET BBS COMMODORE COMM., LAKE ST. LOUIS, MO..!(314) 625 4576*24

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 PMS - ELLICOTT CITY, MD.....(301) 465 3176
 PMS - ESCONDIDO, CA.....(714) 746 0667
 PMS - FT. SMITH COMP. CLUB, FT. SMITH, AK...!(501) 646 0197
 PMS - GULFCOAST, FREEPORT, TX.....(713) 233 7943*24
 PMS - INDIANAPOLIS, IN.....(317) 787 5486*24
 PMS - LAKESIDE, CA. (TYPE PMS TO ACTIVATE)...(714) 561 7271*24
 PMS - LOS ANGELES, CA.....(213) 334 7614*24
 PMS - MASSILLON, OH.....(216) 832 8392*24
 PMS - MCCRAW-HILL BOOKS, NEW YORK, NY.....(212) 997 2488
 PMS - MESA SYSTEMS, SAN DIEGO, CA.....!(714) 271 8613
 PMS - MINNEAPOLIS, MN.....(612) 929 6699*24
 PMS - MISSION VALLEY, CA.....(714) 295 8280
 PMS - I.A.C., LAKE FOREST, IL.....(312) 295 6926*24
 PMS - O.A.C., WOODLAND HILLS, CA.....(213) 346 1849*24
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 PMS - PLEASANTON, CA.....(415) 462 7419*24
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 PMS - RAUG, AKRON, OH.....(216) 867 7463*24
 PMS - RUTGERS UNIV. MICROLAB, PISCATAWAY, NJ.(201) 932 3887
 PMS - SAN DIEGO, CA.....(714) 582 9557*24
 PMS - SANTA CLARA, CA.....(408) 554 9036
 PMS - SANTA CRUZ, APTOS, CA.....(408) 688 9629*24
 PMS - SANTEE, CA.....#1 (714) 561 7277*24
 PMS - SHAWNEE MISSION, KANSAS CITY, MO.....!(913) 341 3502*24
 PMS - SHREWSBURY, NJ.....(201) 747 6768
 PMS - SOFTWARE UNLTD, KENMORE, WA.....(206) 486 2368*24
 PMS - TAMPA, FL.....(DOWN TEMP)
 PMS - YOUR COMPUTER CONNECTION, KS CTY, MO...(913) 381 1021

 FSEBS BALTIMORE, MD.....(301) 994 0399*24
 FSEBS WASHINGTON, DC.....(202) 337 4694*24

 RATS SYSTEMS.....#1 (201) 887 8874
 RATS HOMEWOOD, IL.....(312) 957 3924
 RATS WENONAH, NJ.....(609) 468 5293
 RATS WENONAH, NJ #2.....(609) 468 3844

 RCP/M AABE NEW YORK, NY.....(212) 787 5520
 RCP/M AIMS HINSDALE, IL.....!(312) 789 0499*24
 RCP/M ARLINGTON, VA.....!(703) 536 3769
 RCP/M CBBS ANAHUG, ANAHEIM, CA.....(714) 774 7860
 RCP/M CBBS CP/M NET SIMI VALLEY, CA.....(805) 527 9321
 RCP/M CBBS COLUMBUS, OH.....(614) 272 2227*24
 RCP/M CBBS FROG HOLLOW, VANCOUVER, BC, CN...!(604) 873 4007*24
 RCP/M CBBS PASADENA, CA.....(213) 799 1632*24
 RCP/M CBBS RLP, MACLEAN, VA.....!(703) 524 2549*24
 RCP/M CBBS SACRAMENTO, CA.....!(916) 483 8718*24
 RCP/M CHUCK FORSBERG, OR.....!(503) 621 3193
 RCP/M COLLOSSAL OXGATE, ??!(408) 263 2588
 RCP/M CUG-NOTE, DENVER, CO.....!(303) 781 4937*24

RCP/M CUG-NODE, PA STATE COLLEGE.....!(814) 238 4857*24

 \RCP/M DETROIT, MI.....(313) 584 1044-RB

 RCP/M GENESEO, IL.....!(309) 944 5455
 RCP/M HAPN HAMILTON, ONTARIO, CN.....!(416) 335 6620*24
 RCP/M IBM-PC, NILES, IL.....!(312) 647 7636*24
 RCP/M LOGAN SQUARE, CHICAGO, IL.....(312) 252 2136

 \RCP/M MCBBS KEITH PETERSEN, ROYAL OAK, MI....(313) 759 6569-RB

 RCP/M MCBBS KEN STRITZEL, FLANDERS, NJ.....!(201) 584 9227*24
 RCP/M MCBBS SUPERBRAIN, LEXINGTON, MA.....&(617) 862 0781*24

 \RCP/M MCBBS TCBBS DEARBORN, MI.....(313) 846 6127*24

 RCP/M MISSISSAUGA, TORONTO, ONT., CN.....&(416) 826 5394*24
 RCP/M MISSISSAUGA HUG, TORONTO, ONT., CN...&(416) 826 5394*24
 RCP/M NEI, CHICAGO, IL.....(312) 949 6189
 RCP/M PALATINE, IL.....&(312) 359 2553*24
 RCP/M PICONET OXGATE, ??(415) 965 4097*24
 RCP/M RBBS ALLENTOWN, PA.....(215) 398 3937*24
 RCP/M RBBS ANAHUG, ANAHEIM, CA.....(714) 774 7860*24
 RCP/M RBBS ARVADA ELECT., COLORADO SPRINGS, CO.(303) 634 1158*24
 RCP/M RBBS BOULDER, CO.....(303) 499 9169
 RCP/M RBBS BETHESDA, MD.....!(301) 229 3196
 RCP/M RBBS COMP. TECH. ASSOC., EL PASO, TX..!(915) 533 2202*24
 RCP/M RBBS COMPUTERIZED SERVICES, TAMPA, FL..(813) 839 6746
 RCP/M RBBS COMPUTRON, EDMONTON, ALBERTA, CAN.(403) 482 6854*24
 RCP/M RBBS CRANFORD, NJ.....(201) 272 1874
 RCP/M RBBS DATATECH, SAN CARLOS, CA.....(415) 595 0541
 RCP/M RBBS EDMONTON, ALBERTA, CANADA.....(403) 454 6093*24
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 RCP/M RBBS GFRN DTA EXCH. PALOS VERDES, CA.&(213) 541 2503*24
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 RCP/M RBBS HUNTSVILLE, AL.....(205) 895 6749-RB
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 RCP/M RBBS LAUREL, MD.....!(301) 953 3753*24
 RCP/M RBBS LARKSPUR, CA.....(415) 461 7726*24
 RCP/M RBBS MARIN COUNTY, CA.....!(415) 383 0473*24
 RCP/M RBBS MUG, MISSION, KS.....&(913) 362 9583*24
 RCP/M RBBS NAPA VALLEY, CA.....(707) 253 1523
 RCP/M RBBS OCEAN, NJ.....&(201) 775 8705
 RCP/M RBBS SAN JOSE OXGATE, SAN JOSE, CA....!(408) 287 5901*24
 RCP/M RBBS SURREY, VANCOUVER, BC, CN.....!(604) 584 2643*24

 \RCP/M RBBS PONTIAC, MI.....!(313) 338 85-5

 RCP/M RBBS PAUL BOGDANOVICH, NJ.....!(201) 747 7301
 RCP/M RBBS ROCHESTER, NY.....(716) 223 1100*24
 RCP/M RBBS RUTGERS, NEW BRUNSWICK, NJ.....(201) 932 3879*24
 RCP/M RBBS SAN DIEGO, CA.....&(714) 273 4354*24
 RCP/M RBBS SOFWAIRE STORE, LOS ANGELES, CA...(213) 479 3189*24
 RCP/M RBBS SOFTWARE TOOLS, AUSTRALIA.....(02) 997 1836

VRCP/M RBBS SOUTHFIELD, MI.....(313) 559 5326*24
VRCP/M RBBS WESTLAND, MI.....(313) 729 1905-RB

RCP/M RBBS WOODSTOCK, NY.....!(914) 679 8734
RCP/M RBBS YELM, WA.....(206) 458 3086-RB
RCP/M SILICON VALLEY, CA.....!(408) 246 5014*24
RCP/M SJBBB BEARSVILLE, NY.....(914) 679 6559-RB
RCP/M SJBBB JOHNSON CITY, NY.....(607) 797 6416
RCP/M TRS-80 CHICAGO, IL.....(312) 949 6189
RCP/M TERRY O'BRIEN, VANCOUVER, BC, CANADA...(604) 584 2543

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REMOTE NORTHSTAR DENVER, CO.....(303) 444 7231
REMOTE NORTHSTAR LARGO, FL.....(813) 535 9341*24
REMOTE NORTHSTAR NASA, GREENBELT, MD.....(301) 344 9156
REMOTE NORTHSTAR SANTA BARBARA, CA.....(805) 682 7876
REMOTE NORTHSTAR SANTA BARBARA, CA.....(805) 964 4115
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ST80-PBB MONROE CAMERA SHOP, MONROE, NY.....(914) 782 7605

TCBBS B.A.M.S. NEW YORK, NY.....(212) 362 1040*24
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TCBBS W.E.B.B. NEW YORK, NY.....#1(212) 799 4649

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TRADE-80 OMAHA, NE.....(402) 292 6184
TRADE-80 ERIE, PA.....(814) 898 2952*24

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ALPHA, TAMPA, FL.<ACCT#=ABCD00, PWD=TRYIT>..(813) 251 4095*24
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ARBB SEATTLE, WA.....(206) 546 6239
AUNT DRU'S X RATED, NORTH WALES, PA.....(215) 855 3809
AVIATORS BULLETIN BOARD, SACRAMENTO, CA.....(916) 393 4459
BATHROOM WALL BBS, SAN ANTONIO, TX.....!(512) 655 8143
BATON ROUGE DATA SYSTEM, BATON ROUGE, LA.....(504) 926 0181
BIG TOP GAMES SYSTEM, MILWAUKEE, WI.....(414) 259 9475
BOSTON INFORMATION EXCHANGE, BOSTON, MA.....&(617) 423 6985*24
BRONX BBS, NY.....(212) 933 9459
BR'S BBS SANTA MONICA, CA.....(213) 394 5950
BRADLEY COMPUTER BBS.....(813) 734 7103
BSBB TAMPA, FL.....(813) 885 6187
CAPITAL CITY BBS, ALBANY, NY.....(518) 346 3596*24
CARRIER 2 ALEXANDRIA, VA.....(703) 823 5210
C-HUG BULLETIN BOARD, FAIRFAX, VA.....(703) 360 3812*24
COMPUSYSTEMS, COLUMBIA, SC.....(803) 771 0922
COMPUTERLAND ONLINE, MONTREAL, QUEBEC, CN...!(514) 931 0458*24

COMPUTER ARTS MESSAGE SYSTEM, NEWHALL, CA....(805) 255 6445
COMPUTER CONSPIRACY.....(213) 829 1140
CORSAIR, GOLDCOAST, FL.....(305) 968 8653
DATABOARD BBS, ATHERTON, CA.....!(415) 367 7638*24
DIMENSION-80 ORANGE, CA.....(714) 974 9788
DISTRA-SOFT, MONTREAL, QUEBEC, CN.....!(514) 327 5764*24
DRAGON'S GAME SYSTEM.....(PASS=DRAGON)...(213) 428 5206
ELECTRIC LINE CONNECTION, SHERMAN OAKS, CA...(213) 789 9512
EXPERIMENTAL-80 KANSAS CITY, MO.....(913) 676 3613
FBBS SKOKIE, IL.....#1 (312) 677 8514
HERMES-80 ALLENTOWN, PA.....(215) 434 3998
HEX SILVER SPRING, MD.....Z(301) 593 7033*24
IAC MESSAGE BASE, MENLO PARK, CA.....(415) 367 1339*24
INFOEX-80 WEST PALM BEACH, FL.....(305) 683 6044*24
JCTS REDMOND, WA.....(206) 883 0403*24
KLUGE COMPUTER.....\$8(213) 947 8128*24
L.A. INTERCHANGE, LOS ANGELES, CA.....(213) 631 3186*24
LEHIGH PRESS BB, PA.....#1 (215) 435 3388
LETHBRIDGE GAMING SYSTEM, LETHBRIDGE, AB...!(403) 320 6923
LONG BEACH COMMUNITY COMPUTER.....(213) 591 7239*24
MAIL BOARD-82 SEATTLE, WA.....(206) 527 0897*24
MARS/RP ROGERS PARK, IL.....(312) 743 8176*24
MICRO-80 WEST PALM BEACH, FL.....(305) 686 3695
MICRO INFORMER.....(813) 884 1506
MIDWEST, ST. LOUIS, MO.....(314) 227 4312
MINI-BIN SEATTLE, WA.....(206) 762 5141*24
NBBS NORFOLK, VA.....!(804) 444 3392
NESSY CHICAGO, IL.....#1 (312) 773 3308
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NEW JERSEY TELECOM.....#1 (201) 635 0705*24
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NORTH ORANGE COUNTY COMPUTER CLUB.....(714) 633 5240
NOVATION CO., LOS ANGELES, CA....<PASS=CT>...(213) 881 6880
NYBBLES-80 ELMSFORD, NY.....(914) 592 5385
OARCS PORTLAND, OREGON.....(503) 641 2798
ORACLE NORTH HOLLYWOOD, CA.....(213) 980 6743
ORACLE CLASSIFIED SYSTEM, AUSTIN, TX.....(512) 346 4495
ORANGE COUNTY DTA EXCHANGE, GARDEN GROVE, CA.(714) 537 7913
PERSONAL MESSAGE SYSTEM-80, DEERFIELD BCH, FL.(305) 427 6300*24
PHOTO-80, HALEDON, NJ.....(201) 790 6795
POTOMAC MICRO MAGIC INC., FALLS CHURCH, VA...(703) 379 0303*24
REMOTE APPLE JACKSON, MS.....(601) 992 1918*24
SATUG BBS, SAN ANTONIO, TX.....!(512) 494 0285
SEACOMM-80 SEATTLE, WA.....(206) 763 8879*24
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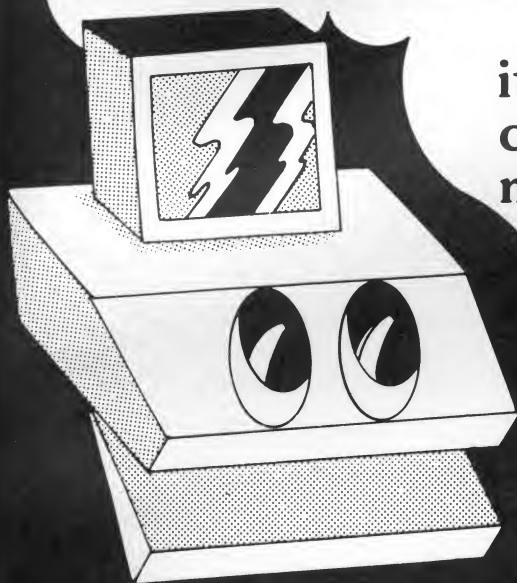
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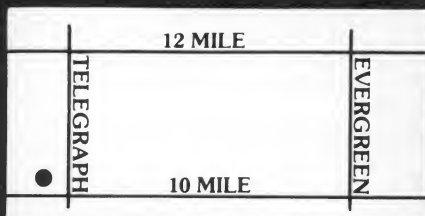
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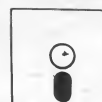


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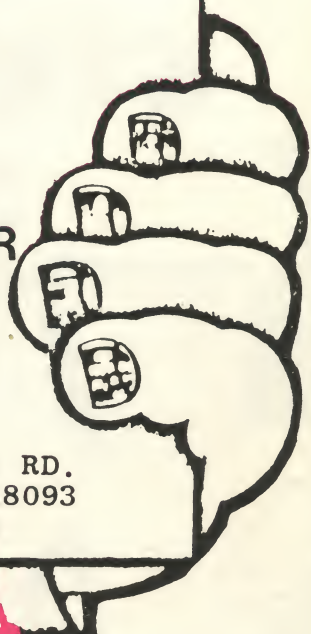
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